

Testing Exercise 1:

Due: 7/8/2004 23:59:59

Perform black box testing on the RosterDAO Java class. Automated unit test will be created using the JUnit open source framework. The RosterDAO API (Java Doc) describes the functionality and constraints of the Roster data access object.

Test Case Requirements:

1. Test all public methods in the RosterDAO.
2. Test should check for success, failure, and errors.
3. Test should check for Exceptions thrown as documented in the API.
4. Test all parameters constraints documented in the API.
5. Test should assert returned values as documented in the API.
6. Test should leave the system in its original state.
7. Test should not be dependent on external scripts or manual processes.
8. A single class named AllTests.java should be created with a main method that runs the test suite.
9. The junit.swingui.TestRunner should be used.
10. The TestCase classes will be reviewed for the "pitfalls" covered in class.
11. The package name for the test cases should follow the format edu.unf.cen6070.firstname_lastname (example: edu.unf.cen6070.greg_jackson.AllTest.java)

Turn In Instructions:

1. A JAR file should be created containing:
 - a. Generated class files and resources.
 - b. Java source files and resources.
2. The JAR file name should follow the format firstname_lastname.jar (example: greg_jackson.jar)
3. The JAR does not need to contain the roster.jar, junit.jar, or mysql-connector.
4. E-mail the JAR to greg.jackson@ngc.com and ncoulter@unf.edu.

Project Setup:

1. Download the **exercisel.zip** file from <http://www.unf.edu/~ncoulter/cen6070> containing:
 - a. CEN6070_Excercise1.doc (37KB) – This document
 - b. roster.jar (11KB) – The RosterDAO classes (no source)
 - c. data.zip (13KB) – The MySQL database and table
 - d. junit.jar (119KB) – The JUnit framework version 3.8.1
 - e. mysql-connector-java-3.0.14-production-bin.jar (232KB) – MySQL JDBC drivers
 - f. /docs (285KB) – API Java Doc
2. Create a new project in your favorite IDE or Eclipse.
3. Add the roster.jar, junit.jar, and mysql-connector-java-3.0.14-production-bin.jar to the projects classpath.
4. Extract the data.zip file and add the folder cen6070 to the folder c:\mysql\data\ . This will create the database and table required for the roster application to run.
5. You are now ready to build JUnit test cases!!!

Recommended Software:

- J2SE v1.4.2_04 SDK
- Eclipse 3.0M9
- MySQL 4.2.20a
- MySQL Control Center 0.9.4-win32
- JUnit 3.8.1
- MySQL Connector/J 3.0.14

J2SE Installation:

1. Download J2SE v1.4.2_04 SDK at <http://java.sun.com/j2se/1.4.2/download.html>
2. Install J2SE by running the .exe file.
3. Add C:\j2sdk1.4.2_04\bin to the PATH.
4. Re-Boot

MySQL

1. Download MySQL 4.2.20a at <http://dev.mysql.com/downloads/mysql/4.0.html>
2. Extract zip file.
3. Run setup.exe
4. Install at C:\mysql
5. Copy folder cen6070 inside the data.zip (on website) into C:\mysql\data\
6. Important commands (enter at dos command prompt):
 - a. C:\mysql\bin\mysqld –console (starts database, leave window open)
 - b. C:\mysqladmin –u root shutdown (shuts down database)

MySQL Control Center

1. Download MySQL Control Center 0.9.4-win32 at <http://dev.mysql.com/downloads/mysqlcc.html>
2. Extract zip file.
3. Run setup.exe
4. Start Control Center under Start>Programs>MySQL Control Center
5. Name database cen6070
6. Roster table should be accessible.

Eclipse Installation:

1. Download Eclipse 3.0M9 at <http://www.eclipse.org/downloads/index.php>
2. Extract zip file.
3. Run using eclipse.exe

JUnit:

1. Download JUnit 3.8.1 at <http://www.junit.org>

MySQL Connector/J:

1. Download Connector/J 3.0.14 at <http://dev.mysql.com/downloads/connector/j/3.0.html>